

Influences of Waiting Experience on Customer Satisfaction: A Study of Service Operation in Japan

1 Introduction

Consumers often wait in line as they go about their day-to-day activities. Imagine customers waiting in line in front of a popular restaurant; they may feel dissatisfied because of the long waiting time. Thus, many studies have focused only on the negative influence of waiting time, such as on customer satisfaction (e.g., Taylor, 1994; Strombeck and Wakefield, 2008).

However, there might be cases where waiting in line has a positive influence or no influence on customer satisfaction, such as when customers can read a menu and when they can see the chef cooking as they wait in line. In these cases, customers perceive the waiting time as shorter than the actual waiting time. The smell of food being cooked and the transparency of the cooking process can also raise customer expectations, and, in turn, increase customer satisfaction (Oliver, 1980). Therefore, the empirical finding that waiting in line has a negative impact on customer satisfaction may not be true in every case because researchers have not completely described consumers' psychological processing of such other factors.

This research identifies and hypothesizes the conditions in cases where waiting in line has a positive or no effect on customer satisfaction based on findings of prior research. We conduct an analysis of variance (ANOVA) using data obtained through a consumer survey in order to examine the empirical validity of the hypotheses.

2 Literature Review

2.1 Actual Waiting Time and Perceptual Waiting Time

According to Bougie, Pieters, and Zeelenberg (2003), the waiting time before the service delivery makes customers dissatisfied and angry. However, customers might be less dissatisfied when a service provider shortens not the actual waiting time but the perceptual (perceived) waiting time (e.g., Maister, 1985; Taylor, 1994; 1995). In addition, customers frequently overestimate the length of time they actually wait (Katz, 1991). Maister (1985) indicated that the perceptual time is longer when customers have nothing to do while waiting than when they have something to do, and that it is longer in an unexpected situation than in an expected one. Thus, the concept of perceptual time is important in considering customers' waiting situations.

2.2 Customer Expectations and Customer Satisfaction

Oliver (1980; 2010) developed the expectancy disconfirmation theory, which describes the relationship between customer expectations and customer satisfaction. Customers often form expectations from their purchase experiences and knowledge. According to the expectancy disconfirmation theory, 1) customers evaluate service or product outcomes as expected when the outcomes conform to their expectations of the service or product, 2) customers are satisfied when the outcomes exceed their expectations, and 3) customers are dissatisfied when the outcomes are below their expecta-

tions. For tangible goods that are easy to evaluate after purchase, it is easy for customers to compare their expectations with the outcome, and therefore, customer satisfaction tends to be affected by expectancy disconfirmation. However, intangible goods, such as services, are difficult to evaluate after purchase, so it is difficult for customers to compare their expectations with the outcome. Therefore, customer satisfaction is influenced more by expectations than by disconfirmation. In addition, Oliver (1980) insisted that the higher the customer expectations of a service, the higher the customer satisfaction.

2.3 Desires

Kotler (1999) divided human desires into needs, wants, and demands. Needs are basic desires, wants are needs directed to a specific category, and demands are wants directed to specific brands, which match buying capacity. These desires are hierarchically related. When people have a meal, the needs are hunger and/or thirst; the wants are the kinds of food, such as a pasta dish, to have; and the demands are the brand of the restaurants at which they want to have the pasta dish.

2.4 Stimuli

Consumer buying behavior is a result of problem solving, and thus, it starts from problem recognition (Bettman, 1979). Kotler, Armstrong, Saunders, and Wong (2001) indicated that external and internal stimuli are drivers of problem recognition. Internal stimuli enable customers to feel the problem, such as hunger, while external stimuli, such as market information from mass media or from other consumers, enable them to realize the problem. When customers are satisfied when their needs are met, they might communicate that satisfaction (with both the consumption and service experiences) to another customer, and such communication serves also as meeting their esteem needs (Maslow, 1987).

3 Hypotheses

3.1 Additional Services

Perceptual waiting time has a stronger influence on customer satisfaction than actual waiting time (Maister, 1985). Therefore, shortening perceptual waiting time is more effective in increasing customer satisfaction than shortening actual waiting time. For instance, additional services, such as giving the restaurant menu to customers waiting in line, might diminish customers' sense of waiting time.

In addition, the higher the customer expectations of a service, the higher the customer satisfaction (Oliver, 1980). Therefore, additional services that increase customer expectations, such as enabling customers to see chefs cooking while they wait in line, are assumed to increase customer satisfaction.

The above discussion of prior research findings suggests that customer satisfaction increases with additional services that shorten perceptual time and that increase customer expectations. Therefore, we propose hypothesis 1 as follows.

H1: When customers have to wait in line for a service, the level of customer satisfac-

tion is higher when there are additional services that shorten a perceptual time and raise customer expectation than when customers do not have to wait in line.

3.2 Service Specification

According to Kotler (1999), human desires can be divided into three parts: needs, wants, and demands. For example, on the one hand, there are consumers who have abstract desires that are needs and who have not yet decided the category of the service to purchase, and on the other hand, there are consumers who have specific desires that are demands and who have already decided the brand of the service they want to buy.

When customers dine out for the purpose of satisfying their hunger, they do not specify the brand of service and cannot put a value on waiting in line; thus, waiting time decreases customer satisfaction. On the other hand, when customers dine out for the purpose of consuming a specific brand of service, they have strong preferences for that service brand, and thus, waiting time has a smaller negative effect on customer satisfaction. Therefore, we propose hypothesis 2-1 as follows.

H2-1: When customers have to wait in line for a service, the level of customer satisfaction is higher when customers specify a brand of service than when they do not.

3.3 Service Specification Based on External Stimuli

Consumers who learn from acquaintances, friends, or family that a popular restaurant requires waiting in line (i.e., external stimulus) do not feel dissatisfied when they arrive at the restaurant because, owing to the information they received, they may now have a strong preference for that restaurant and because they can expect that they will be waiting in line when they arrive (Maister, 1985). Thus, customer satisfaction decreases when there is no waiting line and customers are not certain of whether that restaurant is popular.

In addition, customers can share their waiting time experience with the source of the external stimuli (i.e., acquaintances, friends, and family) that they previously received and with other people. This satisfaction of esteem needs might make the customer satisfied with the service (Maslow, 1987). Therefore, we propose hypothesis 2-2 as follows.

H2-2: When customers have to wait in line for a service, the level of customer satisfaction is higher when customers specify a brand of service based on the external stimuli than when customers do not have to wait in line.

4 Empirical Tests

4.1 Pre-Test

Before testing the hypotheses, a pre-test was conducted using Dube-Rioux, Schmitt, and Leclerc's (1988) method to decide the length of waiting time. The par-

ticipants were asked to write their expected average waiting time, and the results show this average to be five minutes. In the study scenario, the participants needed to recognize that the actual waiting time was longer than the usual waiting time. Accordingly, we added 10 minutes to the expected 5 minutes, thus setting the waiting time to 15 minutes (Dube-Rioux, Schmitt, and Leclerc, 1988).

4.2 Data Collection

As for experimental survey, we reestablished the hypothetical scenario method used by Dube-Rioux *et al.* (1988). We assigned 10 scenarios based on the waiting conditions to 10 grouping of subjects. For hypothesis 1, we assigned 4 scenarios: 2 (with waiting in line/without waiting in line) * 2 (with additional services/without additional services). For hypothesis 2-1, we assigned 2 scenarios: 2 (specified service brand/unspecified service brand). Finally, for hypothesis 2-2, we assigned 4 scenarios: 2 (with waiting in line/without waiting in line) * 2 (internal stimuli/external stimuli).

In terms of customer satisfaction, we adopted the measures developed by Arora (1985) and Crosby and Stephens (1987). The participants were asked to reply to the following three questions: “Are you satisfied with the service you have received in this restaurant?” “Are you satisfied with choosing this restaurant?” and “Did you think that the action you took was right?” (Arora, 1985). We asked the participants to express their responses to these questions according to a 7-point Likert scale (1: strongly disagree, 7: strongly agree). In addition, the participants were asked to reply to the question, “What did you think about the restaurant?” (Crosby and Stephens, 1987). We asked the participants to express their responses according to a 7-point semantic differential method (satisfied-dissatisfied, delight-anger, and favorable-unfavorable). The participants were 405 undergraduate students, and there were 405 valid sets of responses (100%).

4.3 Hypotheses Testing

ANOVA was used to analyze the hypotheses proposed above. Regarding the overall evaluation of the hypothesis 1 model, the overall F-value was 15.299, which was statistically significant at the 0.1% level. The model’s R^2 value was 0.630, and the F-value was 20.394, which was statistically significant at the 0.1% level. Therefore, hypothesis 1 was supported. Table 1a and Figure 1a show that the mean value of customer satisfaction was 6.067 when there was waiting in line and additional services (standard deviation was 0.229) and that the mean value of customer satisfaction was 5.300 without waiting in line and additional services (standard deviation was 0.324).

Please insert Table 1 about here

Please insert Figure 1 about here

Regarding the evaluation of the hypothesis 2-1 model, the F-value was 0.077, which was not significant. Therefore, hypothesis 2-1 was not supported. Table 1b and Figure 1b show that the mean value of customer satisfaction was 5.625 when there was waiting in line and the brand of service was specified (standard deviation was 0.241) and that the mean value of customer satisfaction was 5.513 when there was waiting in line and the brand of service was not specified (standard deviation was

0.328).

Regarding the overall evaluation of the hypothesis 2-2 model, the overall F-value was 3.628, which was not statistically significant, and the value of R^2 was 0.280. The F-value for waiting line was 8.355, which was significant at the 1% level. The F-value for stimuli was 6.701, which was significant at the 5% level. According to Table 1c and Figure 1c, the mean of customer satisfaction when there was waiting in line and the service brand was specified by external stimuli was 6.050 (standard deviation was 0.203), which was lower than the mean of customer satisfaction when there was no waiting in line. Therefore, hypothesis 2-2 was not supported.

5 Discussion and Conclusion

5.1 Summary and Outcomes

Prior research has insisted that waiting in line has a negative impact on customer satisfaction, and it has searched for factors that shorten the perceptual waiting time. In this study, we found the conditions where waiting in line has a positive influence or no influence on customer satisfaction. The first condition is providing additional services that decrease perceptual time and enhance customer expectations. The novel finding of this research is that customer satisfaction decreases with waiting time but increases with additional services.

The second condition is that customers who go to a restaurant that has a waiting line take the opportunity to go to that restaurant based on external stimuli. For customers who have already decided the brand of service, satisfaction decreases with waiting in line. However, the satisfaction of customers who have already decided the brand of service from external stimuli, that is, the information they received from people around them, is the same as that of customers who do not experience waiting in line.

By providing the theoretical implications above, we have contributed to the body of knowledge on marketing and service research to a certain extent. The results of our analysis can be utilized in various ways by managers of restaurants that often have waiting lines, such as in shortening the perceptual waiting time. First, restaurant managers should implement strategies to shorten waiting time. For instance, providing customers waiting in line with the menu or other reading materials, such as magazines or newspapers, and giving customers the option to sit as they wait for the line to move forward, can help shorten waiting time. Second, restaurant managers should also implement strategies to increase customer expectations. For example, enabling customers waiting line to see the inside of the restaurant or the kitchen, where the chefs are preparing the food, and providing customers food samples can help increase customer expectations.

Third, managers of popular restaurants should provide a service that encourages customers to talk positively about the restaurant to others. For example, the restaurant could make sure its layout is spacious, easy to navigate, well lighted and inviting. In addition, the restaurant could provide dishes that draw the attention of customers and encourage them to take pictures and share the pictures on social media. By implementing these strategies, restaurant managers can help address inconveniences that

decrease customer satisfaction, such as by making them wait in line for a long time.

5.2 Future Research

This study has some limitations related to the research method. First, the consumer sample was limited to undergraduate students because of time and budget restrictions. Thus, it is necessary for future studies to increase the reliability of the analysis by using respondents other than university students. Moreover, this research focused on service from restaurants, following Dube-Rioux *et al.* (1988), whose research focused on French restaurants. Thus, future studies might obtain more meaningful results and implications by focusing on other service industries, such as the hospital and banking industries.

Finally, this research focused only on waiting lines in examining waiting experience and its influence on customer satisfaction and considered only customers who have visited the restaurant for the first time. New knowledge about waiting experience and customer satisfaction may be obtained by examining these other variables in relation to the waiting experience.

This research, despite its limitations, can serve as meaningful foundation for business and marketing research and practice, since it elucidated the different effects of waiting lines on customer satisfaction and identified the conditions in cases where the waiting experience can maintain or increase customer satisfaction.

Table 1 Hypotheses Testing

a: Means and standard deviations (Hypothesis 1)

X_1 (Waiting lines)	X_2 (Additional services)	Means (Standard deviations)
Without	Without	5.300 (0.324)
With	With	6.067 (0.229)

b: Means and standard deviations (Hypothesis 2-1)

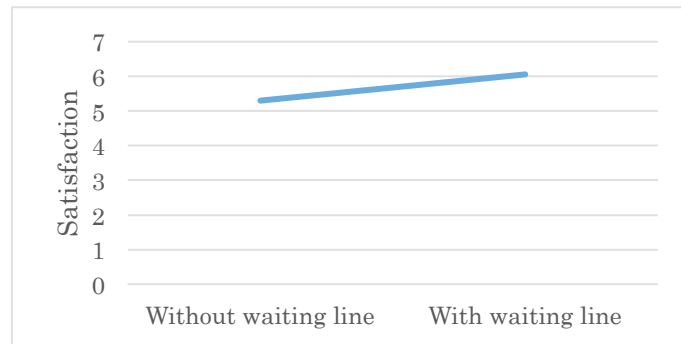
X_1 (Specified/unspecified brand)	Means (Standard deviations)
Unspecified	5.513 (0.241)
Specified	5.625 (0.328)

c: Means and standard deviations (Hypothesis 2-2)

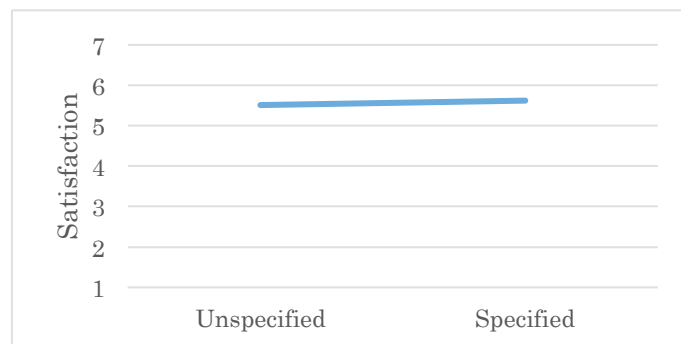
X_1 Waiting line	X_2 Stimuli	Means (Standard deviations)
Without	Internal	6.917 (0.321)
With	Internal	5.556 (0.262)
Without	External	6.125 (0.185)
With	External	6.050 (0.203)

Figure 1 Hypotheses Testing

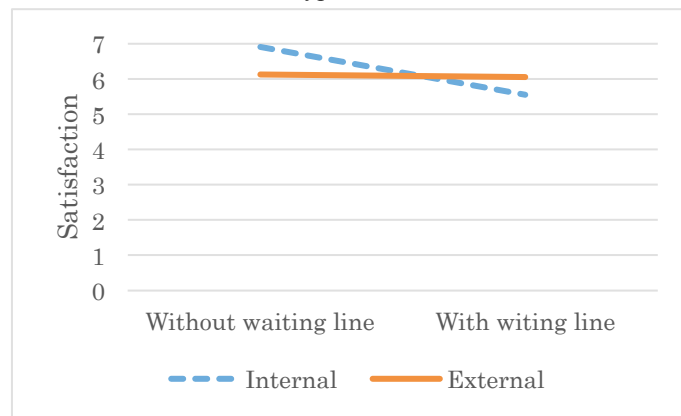
a: Hypothesis 1



b: Hypothesis 2-1



c: Hypothesis 2-2



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